

INTERNATIONAL SEARCH REPORT

International Application No. PCT/EP 03/10807	
A. CLASSIFICATION OF SUBJECT MATTER IPC 7 B22D11/111 C21C5/00 C21C7/00 B22D11/10	
According to International Patent Classification (IPC) or to both national classification and IPC	
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 7 B22D C21C	
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched	
Electronic data base consulted during the international search (name of data base and, where practical, search terms used) WPI Data, EPO-Internal, PAJ, COMPENDEX	
C. DOCUMENTS CONSIDERED TO BE RELEVANT	
Category *	Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No.
X	DE 197 28 368 C (HELLER GEORG) 4 March 1999 (1999-03-04) abstract column 3, line 53 -column 4, line 16; claims 6,7
A	1-6, 10-13, 24,25
X	K. SCHWERTFEGGER: "Metallurgie des Stranggiessens", VERLAG STAHLTEISEN, DÜSSELDORF XP002264211 ISBN: 3-514-00350-5 page 236, paragraph 1; table 3.2.1 --- -/-
7-9, 14-23	1-3, 6-8, 10-12, 24,25
<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C.	
<input checked="" type="checkbox"/> Patent family members are listed in annex.	
* Special categories of cited documents: *A* document defining the general state of the art which is not considered to be of particular relevance *E* earlier document but published on or after the international filing date *L* document which may throw doubts on priority, claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) *O* document referring to an oral disclosure, use, exhibition or other means *P* document published prior to the international filing date but later than the priority date claimed	
T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art *Z* document member of the same patent family	
Date of the actual completion of the international search 10 December 2003	Date of mailing of the international search report 05/01/2004
Name and mailing address of the ISA European Patent Office, P.B. 5618 Patentkan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 851 ssp nl, Fax (+31-70) 340-3016	Authorized officer Catana, C

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 013, no. 565 (N-907), 14 December 1989 (1989-12-14) - & JP 01 237049 A (SHIN NIPPON KAGAKU KOGYO CO LTD; OTHERS: 01), 21 September 1989 (1989-09-21) abstract	1-4, 10, 12, 13, 24, 25
X	DE 37 42 415 C (FRANK & SCHULTE GMBH) 1 December 1988 (1988-12-01) abstract column 2, line 62 - column 3, line 39	1-4, 10-13, 24, 25
A		5-9, 14-23
X	DE 37 27 619 C (HAGENBURGER CHAMOTTE TON) 24 November 1988 (1988-11-24) abstract; claims 1-3	1-7, 24, 25
A	DE 101 24 926 A (NOACK HANS-PETER) 28 November 2002 (2002-11-28)	
A	DE 38 23 410 C (H. KRAMER GMBH & CO KG) 24 May 1989 (1989-05-24)	
A	DE 42 30 161 A (VEITSCH RADEX AG) 10 March 1994 (1994-03-10)	
A	PATENT ABSTRACTS OF JAPAN vol. 006, no. 131 (C-114), 17 July 1982 (1982-07-17) - & JP 57 057824 A (SAKAI KAGAKU KOGYO KK), 7 April 1982 (1982-04-07) abstract	
A	PATENT ABSTRACTS OF JAPAN vol. 1998, no. 14, 31 December 1998 (1998-12-31) - & JP 10 258343 A (NIPPON STEEL METAL PROD CO LTD), 29 September 1998 (1998-09-29) abstract	